

## WHAT IS CLAIMED IS:

1. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

5 reading a key definition from a database, wherein the key definition describes a location of one or more data element values in a transaction-related data, wherein the key definition is identified during a configuration of the FSO computer system;

10 reading from the transaction-related data the one or more data element values described in the key definition; and

transferring the one or more data element values read from the transaction-related data to a processing key value.

2. The method of claim 1, further comprising:

15 comparing the processing key value to one or more key values in the database; and

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database;

20 wherein the processing parameter value read from the database is configured for use in processing the transaction-related data in the FSO computer system.

25 3. The method of claim 2, wherein the one or more key values in the database are defined by the user of the FSO computer system during the configuration of the FSO computer system.

4. The method of claim 2, wherein the database further comprises a plurality of processing parameter tables, wherein each processing parameter table

comprises one or more rows, wherein each row in the processing parameter table comprises one processing parameter value and one key value.

5. The method of claim 4, wherein the key definition is one of a plurality of key definitions in the database, wherein each of the plurality of key definitions in the database is associated with one of the plurality of processing parameter tables in the database, wherein the key definition further describes a data format of the key values in the one or more rows of the processing parameter table to which the key definition is associated.

6. The method of claim 5, wherein each of the key values in the processing parameter table comprises one or more key element values.

7. The method of claim 6, wherein each of the plurality of key definitions in the database comprises one or more key elements, wherein each of the one or more key elements describes a data format of one of the one or more key element values in the key values.

8. The method of claim 1, wherein the key definition comprises one or more key elements, wherein each of the one or more key elements describes a location and data format of one of the one or more data element values in the transaction-related data.

9. The method of claim 1, further comprising:

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

10. The method of claim 9, wherein the transferring the one or more data element values read from the transaction-related data to the processing key value further comprises:

5           transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and

10           transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

11. The method of claim 9, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

15           12. A system for processing FSO transactions, the system comprising:  
          a computer program;  
          a computer system;  
          wherein the computer program is executable on the computer system to  
20           execute:

          reading a key definition from a database, wherein the key definition describes a location of one or more data element values in a transaction-related data, wherein the key definition is identified during a configuration of the FSO computer system;

25           reading from the transaction-related data the one or more data element values described in the key definition; and

          transferring the one or more data element values read from the transaction-related data to a processing key value.

13. The system of claim 12, wherein the computer program is further executable on the computer system to execute:

comparing the processing key value to one or more key values in the database, and;

5 reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database;

wherein the processing parameter value read from the database is configured for use in processing the transaction-related data in the FSO computer system.

14. The system of claim 13, wherein the one or more key values in the database are defined by the user of the FSO computer system during the configuration of the FSO computer system.

15. The system of claim 13, wherein the database further comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises one processing parameter value and one key value.

16. The system of claim 15, wherein the key definition is one of a plurality of key definitions in the database, wherein each of the plurality of key definitions in the database is associated with one of the plurality of processing parameter tables in the database, wherein the key definition further describes a data format of the key values in the one or more rows of the processing parameter table to which the key definition is associated.

17. The system of claim 16, wherein each of the key values in the processing parameter table comprises one or more key element values.

18. The system of claim 17, wherein each of the plurality of key definitions in the database comprises one or more key elements, wherein each of the one or more key elements describes a data format of one of the one or more key element values in the key values.

19. The system of claim 12, wherein the key definition comprises one or more key elements, wherein each of the one or more key elements describes a location and data format of one of the one or more data element values in the transaction-related data.

20. The system of claim 12, wherein the computer program is further executable on the computer system to execute:

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

21. The system of claim 20, wherein the transferring the one or more data element values read from the transaction-related data to the processing key value further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

22. The system of claim 20, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

5 23. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

reading a key definition from a database, wherein the key definition describes a location of one or more data element values in a transaction-related data, wherein the key definition is identified during a configuration of the FSO  
10 computer system;

reading from the transaction-related data the one or more data element values described in the key definition; and

transferring the one or more data element values read from the transaction-related data to a processing key value.

15 24. The carrier medium of claim 23, wherein the program instructions are further executable by the computer system to implement:

comparing the processing key value to one or more key values in the database, and;

20 reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database;

wherein the processing parameter value read from the database is configured for use in processing the transaction-related data in the FSO computer  
25 system.

25. The carrier medium of claim 24, wherein the one or more key values in the database are defined by the user of the FSO computer system during the configuration of the FSO computer system.

26. The carrier medium of claim 24, wherein the database further comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises one processing parameter value and one key value.

27. The carrier medium of claim 26, wherein the key definition is one of a plurality of key definitions in the database, wherein each of the plurality of key definitions in the database is associated with one of the plurality of processing parameter tables in the database, wherein the key definition further describes a data format of the key values in the one or more rows of the processing parameter table to which the key definition is associated.

28. The carrier medium of claim 27, wherein each of the key values in the processing parameter table comprises one or more key element values.

29. The carrier medium of claim 28, wherein each of the plurality of key definitions in the database comprises one or more key elements, wherein each of the one or more key elements describes a data format of one of the one or more key element values in the key values.

30. The carrier medium of claim 23, wherein the key definition comprises one or more key elements, wherein each of the one or more key elements describes a location and data format of one of the one or more data element values in the transaction-related data.

31. The carrier medium of claim 23, wherein the program instructions are further executable by the computer system to implement:

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

32. The carrier medium of claim 31, wherein the transferring the one or more data element values read from the transaction-related data to the processing key value further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

33. The carrier medium of claim 31, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

34. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

reading a key definition from a database in response to receiving a request for a processing parameter from a first program, wherein the key definition describes a location of one or more data element values in a transaction-related data;

reading from the transaction-related data the one or more data element values described in the key definition;



reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value;

transferring to a processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value;

comparing the processing key value to one or more key values in the database;

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database, and;

sending the processing parameter value to the first program;

wherein the processing parameter value sent to the first program is configured for use in processing the transaction-related data in the FSO computer system.

35. The method of claim 34, wherein the key definition, search mask, and one or more key values in the database are defined by a user of the FSO computer system during a configuration of the FSO computer system.

36. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;

wherein the computer program is executable on the computer system to execute:

reading a key definition from a database in response to receiving a request for a processing parameter from a first program, wherein the key definition describes a location of one or more data element values in a transaction-related data;

reading from the transaction-related data the one or more data element values described in the key definition;

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value;

transferring to a processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value;

comparing the processing key value to one or more key values in the database;

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database, and;

sending the processing parameter value to the first program;

wherein the processing parameter value sent to the first program is configured for use in processing the transaction-related data in the FSO computer system.

37. The system of claim 36, wherein the key definition, search mask, and one or more key values in the database are defined by a user of the FSO computer system during a configuration of the FSO computer system.

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38. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

reading a key definition from a database in response to receiving a request for a processing parameter from a first program, wherein the key definition describes a location of one or more data element values in a transaction-related data;

reading from the transaction-related data the one or more data element values described in the key definition;

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value;

transferring to a processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value;

comparing the processing key value to one or more key values in the database;

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database; and

sending the processing parameter value to the first program;

5 wherein the processing parameter value sent to the first program is configured for use in processing the transaction-related data in the FSO computer system.

10 39. The carrier medium of claim 38, wherein the key definition, search mask, and one or more key values in the database are defined by a user of the FSO computer system during a configuration of the FSO computer system.

40. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

15 configuring a key definition, wherein the key definition describes a location of one or more data element values in a transaction-related data;

storing the key definition in an FSO database;

receiving a request for a first data element value, wherein the request comprises first transaction data;

20 building a first key definition from the first transaction data;

searching the FSO database to find a match for the first key definition;

reading each of one or more data element values corresponding to the first key definition;

building a processing key value from the one or more data element values;

25 searching the FSO database to find a match for the processing key value;

reading a processing parameter value corresponding to the processing key value;

sending the processing parameter value as the first data element value in response to the request.

41. The method of claim 40, wherein the database comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises the processing key value and the corresponding processing parameter value.

42. The method of claim 41, wherein the key definition is one of a plurality of key definitions in the FSO database, wherein each of the plurality of key definitions in the FSO database is associated with one of the plurality of processing parameter tables in the FSO database, wherein the key definition further describes a data format of the processing key values in the one or more rows of the processing parameter table to which the key definition is associated.

43. The method of claim 40, further comprising:

reading a search mask from the FSO database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

44. The method of claim 43, wherein the building the processing key value from the one or more data element values further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

45. The method of claim 43, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

5 46. A system for processing FSO transactions, the system comprising:

a computer program;

a computer system;

wherein the computer program is executable on the computer system to execute:

10 configuring a key definition, wherein the key definition describes a location of one or more data element values in a transaction-related data;

storing the key definition in an FSO database;

15 receiving a request for a first data element value, wherein the request comprises first transaction data;

building a first key definition from the first transaction data;

searching the FSO database to find a match for the first key definition;

20 reading each of one or more data element values corresponding to the first key definition;

building a processing key value from the one or more data element values;

25 searching the FSO database to find a match for the processing key value;

reading a processing parameter value corresponding to the processing key value;

sending the processing parameter value as the first data element value in response to the request.

47. The system of claim 46, wherein the database comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises the processing key value and the corresponding processing parameter value.

48. The system of claim 47, wherein the key definition is one of a plurality of key definitions in the FSO database, wherein each of the plurality of key definitions in the FSO database is associated with one of the plurality of processing parameter tables in the FSO database, wherein the key definition further describes a data format of the processing key values in the one or more rows of the processing parameter table to which the key definition is associated.

49. The system of claim 46, wherein the computer program is further executable on the computer system to execute:

reading a search mask from the FSO database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

50. The system of claim 49, wherein the building the processing key value from the one or more data element values further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

5           51.     The system of claim 49, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

52.     A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

10           configuring a key definition, wherein the key definition describes a location of one or more data element values in a transaction-related data;  
              storing the key definition in an FSO database;  
              receiving a request for a first data element value, wherein the request comprises first transaction data;  
15           building a first key definition from the first transaction data;  
              searching the FSO database to find a match for the first key definition;  
              reading each of one or more data element values corresponding to the first key definition;  
              building a processing key value from the one or more data element values;  
20           searching the FSO database to find a match for the processing key value;  
              reading a processing parameter value corresponding to the processing key value;  
              sending the processing parameter value as the first data element value in response to the request.

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53.     The carrier medium of claim 52, wherein the database comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table



comprises the processing key value and the corresponding processing parameter value.

54. The carrier medium of claim 53, wherein the key definition is one of a plurality of key definitions in the FSO database, wherein each of the plurality of key definitions in the FSO database is associated with one of the plurality of processing parameter tables in the FSO database, wherein the key definition further describes a data format of the processing key values in the one or more rows of the processing parameter table to which the key definition is associated.

55. The carrier medium of claim 52, wherein the program instructions are further executable by the computer system to implement:

reading a search mask from the FSO database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

56. The carrier medium of claim 55, wherein the building the processing key value from the one or more data element values further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

57. The carrier medium of claim 55, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

5 58. A method to build an access key to access a database table of a Financial Services Organization (FSO) computer system, the method comprising:

receiving a request to access a value from the database table, wherein the request comprises a transaction data associated with an FSO transaction;

preparing the access key using the transaction data as an input, wherein  
10 the access key preparation is consistent with a key definition, wherein the key definition is identified during a configuration of the FSO computer system; and  
accessing the database table using the access key.

59. The method of claim 58, wherein the preparing the access key is  
15 performed by a key building program, and wherein the key building program comprises program instructions for preparing a key value.

60. The method of claim 58, wherein a user of the FSO computer system  
20 identifies the key definition.

61. The method of claim 58, wherein an expert system is executable to  
25 identify the key definition.

62. The method of claim 58, wherein the key definition identifies a particular  
25 arrangement of one or more data elements necessary to access a particular database table.

63. The method of claim 58, wherein the preparing the access key comprises:  
reading the transaction data associated with the FSO transaction;

selecting a plurality of data elements from the transaction data and an FSO database, wherein the selection of the plurality of data elements is consistent with the key definition;

transferring the plurality of data elements to the access key.

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64. A system for processing Financial Services Organization (FSO) transactions, the system comprising:

a computer program;

a computer system;

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wherein the computer program is executable on the computer system to execute:

receiving a request to access a value from a database table, wherein the request comprises a transaction data associated with an FSO transaction;

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preparing the access key using the transaction data as an input, wherein the access key preparation is consistent with a key definition, wherein the key definition is identified during a configuration of the computer system; and

accessing the database table using the access key.

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65. The system of claim 64, wherein preparing the access key is performed by a key building program, wherein the key building program comprises program instructions for preparing a key value.

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66. The system of claim 64, wherein a user of the computer system identifies the key definition.

67. The system of claim 64, wherein an expert system is executable to identify the key definition.

68. The system of claim 64, wherein the key definition identifies a particular arrangement of one or more data elements necessary to access a particular database table.

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69. The system of claim 64, wherein the preparing the access key comprises:  
reading the transaction data associated with the FSO transaction;  
selecting a plurality of data elements from the transaction data and an FSO database, wherein the selection of the plurality of data elements is consistent with the key definition;  
transferring the plurality of data elements to the access key.

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70. The system of claim 64, wherein the computer system comprises a display device coupled to the computer system to display data.

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71. The system of claim 70, wherein the display device is a display screen.

72. The system of claim 64, wherein the computer system comprises a user input device coupled to the computer system to enter data.

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73. The system of claim 72, wherein the user input device is a mouse or a keyboard.

74. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

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receiving a request to access a value from the database table, wherein the request comprises a transaction data associated with a Financial Services Organization (FSO) transaction;

preparing the access key using the transaction data as an input, wherein the access key preparation is consistent with a key definition, wherein the key definition is identified during a configuration of the computer system; and  
accessing the database table using the access key.

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75. The carrier medium of claim 74, wherein the preparing the access key is performed by a key building program, wherein the key building program comprises program instructions for preparing a key value.

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76. The carrier medium of claim 74, wherein a user of the computer system identifies the key definition.

77. The carrier medium of claim 74, wherein an expert system is executable to identify the key definition.

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78. The carrier medium of claim 74, wherein the key definition identifies a particular arrangement of one or more data elements necessary to access a particular database table.

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79. The carrier medium of claim 74, wherein the preparing the access key comprises:

reading the transaction data associated with the FSO transaction;

selecting a plurality of data elements from the transaction data and an FSO database, wherein the selection of the plurality of data elements is consistent with the key definition;

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transferring the plurality of data elements to the access key.

80. The carrier medium of claim 74, wherein the carrier medium is a memory medium.

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